



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D2857-1

Job Sheet 188523



Part No: D2857-1

Job Qty: 20 pcs

Part Name: Hinge Bracket



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 1/10/19

Job Tracking No:

Due Date: 1/24/19

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG REV C IPP C 00.06.22 Removed P/O for powder coat EC IPP D

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Bandsaw - 1	20 pcs		1/24/19	0.00	0.69	Bandsaw - 1		19/02/08 SBL
110	HAAS 4 Axis - B4B	20 pcs		1/24/19	0.13	11.07	HAAS - 1 - B4B		
							HAAS - 2 - B4B		
							HAAS - 3 - B4B		19/02/08 SBL
							HAAS - 4 - B4B		
130	QC 8	20 pcs		1/24/19	0.00	0.00	QC 8 - 12		
							QC 8 - 14		19/02/08
							QC 8 - 17		
							QC 8 - 20		
							QC 8 - 25		
							QC 8 - 3		
							QC 8 - 32		
							QC 8 - 33		
							QC 8 - 35		
							QC 8 - 38		
							QC 8 - 39		
							QC 8 - 4		
							QC 8 - 44		
							QC 8 - 45		
							QC 8 - 49		
							QC 8 - 58		
							QC 8 - 8		
							QC 8 - 9		
							QC 8 - 68		
							QC 8 - 67		
140	Handfinish - 1-1 Chemical-B4B	20 pcs		1/24/19	0.00	0.44	Handfinish - 1 - 1 - B4B		
							Handfinish - 1 - 2 - B4B		
							Handfinish - 1 - 3 - B4B		
							Handfinish - 1 - 4 - B4B		
							Handfinish - 1 - 5 - B4B		
							Handfinish - 1 - 6 - B4B		
							Handfinish - 1 - 7 - B4B		



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S151952



Part: D2857-1

Job No: 188523

Serial No/Batch: S151952

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Date: 02/08/19

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																												
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<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Root Cause</th> <th colspan="4" style="text-align: left;">FAULT CATEGORY</th> </tr> </thead> <tbody> <tr> <td style="width:10%;">Environment ☐</td> <td style="width:10%;">No Re-verification ☐</td> <td style="width:10%;">Pressure/Forced ☐</td> <td style="width:10%;">Temperature/Cure ☐</td> <td style="width:10%;">Power Loss/Surge ☐</td> <td style="width:10%;">Positioned Wrong ☐</td> </tr> <tr> <td>Design ☐</td> <td>Operator ☐</td> <td>Bending ☐</td> <td>Set-up ☐</td> <td>Folio/Program ☐</td> <td>Outside Dimensions ☐</td> </tr> <tr> <td>Doc/Data ☐</td> <td>Offset/Setup ☐</td> <td>Centre Not Concentric ☐</td> <td>BOM/Route ☐</td> <td>Grain ☐</td> <td>Over/Under tolerance ☐</td> </tr> <tr> <td>Equip/Tooling ☐</td> <td>Supplier ☐</td> <td>Cracks ☐</td> <td>Broken/Damage/Defect ☐</td> <td>Weld ☐</td> <td>Part Incorrect ☐</td> </tr> <tr> <td>Handling/Pre ☐</td> <td>Training ☐</td> <td>Crimp/Kink/Ripple/Wave ☐</td> <td>Inspection Incomplete/Unqualified ☐</td> <td>Wrong Stock Pulled ☐</td> <td>Part Lost/Missing ☐</td> </tr> <tr> <td>Material ☐</td> <td>Use for Testing ☐</td> <td>Cuffs ☐</td> <td>Contamination ☐</td> <td>Out of Sequence ☐</td> <td>Part Moved ☐</td> </tr> <tr> <td>Internal Transport ☐</td> <td>Poor Information ☐</td> <td>Crushing ☐</td> <td>Countersink ☐</td> <td>Off-set ☐</td> <td>Drawing ☐</td> </tr> <tr> <td>Tribal Knowledge ☐</td> <td>Rushing ☐</td> <td>Heat Treat ☐</td> <td>Cut Too Short ☐</td> <td>Mislabeled ☐</td> <td>Finish ☐</td> </tr> <tr> <td>LOA ☐</td> <td>Product Improvement ☐</td> <td>Wave/Twist in Tube ☐</td> <td>Instructions Incomplete/Unclear ☐</td> <td>Fit/Function ☐</td> <td>Misread ☐</td> </tr> <tr> <td>Substation ☐</td> <td>Process Improvement ☐</td> <td>Marks/Chatter ☐</td> <td>Drill Holes ☐</td> <td>Misaligned/off center ☐</td> <td>Turning Sequence ☐</td> </tr> <tr> <td>Past Expiry Date ☐</td> <td>Manufacturing Process ☐</td> <td colspan="4" rowspan="2" style="text-align: center; vertical-align: top;">OTHER : _____</td> </tr> <tr> <td>Misidentified ☐</td> <td>Past Due ☐</td> </tr> </tbody> </table>					Root Cause		FAULT CATEGORY				Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____				Misidentified ☐	Past Due ☐
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					Handfinish - 1 - 8 - B4B	
					Handfinish - 1 - 9 - B4B	
					Handfinish - 1 - 10 - B4B	D.R.19/2/11
					Handfinish - 1 - 11 - B4B	
					Handfinish - 1 - 12 - B4B	
					Handfinish - 1 - 13 - B4B	
					Handfinish - 1 - 14 - B4B	
					Handfinish - 1 - 15 - B4B	
					Handfinish - 1 - 16 - B4B	
					Handfinish - 1 - 17 - B4B	
					Handfinish - 1 - 18 - B4B	
					Handfinish - 1 - 19 - B4B	
					Handfinish - 1 - 20 - B4B	
					Handfinish - 1 - 21 - B4B	
					2Handfinish - 1 - 22 - B4B	
160 Powdercoat - 1 White Gl(A) -B4B	20 pcs	1/24/19	0.00	0.30	Powdercoat - 1 - B4B	
					Powdercoat - 2 - B4B	
					Powdercoat - 3 - B4B	BK 19-02-12
					Powdercoat - 4 - B4B	
START: 2.15 O.V.T: 370° FINISH: 2.45.					QC 3 - 10	
170 QC 3	20 pcs	1/24/19	0.00	0.00	QC 3 - 13	
					QC 3 - 15	
					QC 3 - 17	
					QC 3 - 18	
					QC 3 - 2	
					QC 3 - 26	
					QC 3 - 28	
					QC 3 - 3	
					QC 3 - 30	
					QC 3 - 34	
					QC 3 - 36	
					QC 3 - 38	
					QC 3 - 41	
					QC 3 - 51	
					QC 3 - 58	
					QC 3 - 59	
					QC 3 - 6	
					QC 3 - 68	
					QC 3 - 9	
180 Packaging 3-1 - Stock - B4B	20 pcs	1/24/19	0.00	0.00	Packaging 3 - 1 - B4B	
					Packaging 3 - 2 - B4B	
					Packaging 3 - 3 - B4B	
					Packaging 3 - 4 - B4B	
					Packaging 3 - 5 - B4B	
					Packaging 3 - 6 - B4B	
					Packaging 3 - 7 - B4B	
					Packaging 3 - 8 - B4B	
					Packaging 3 - 9 - B4B	
					Packaging 3 - 10 - B4B	

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coor. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By 		
							Lead hand / Supervisor Approval Verification 		
QC / QA Coordinator Approval 									

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	Pressure/Forced ☐	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	☐ Offset/Setup	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	☐ Supplier	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
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Material ☐	☐ Use for Testing	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	☐ Poor Information	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	☐ Rushing	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	☐ Product Improvement	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	☐ Process Improvement	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						

				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	51212 8 FEB 26 2019
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
190 QC 21 - SA	20 pcs	1/24/19	0.00 0.00	QC 21 - SA - 21	21 FEB 26 2019
				QC 21 - SA - 70	

Part Op 100 - (Bandsaw) Cut blanks 4.425"
 Descriptions: 110 - (HAAS CNC Vertical Machine) 1-Machine per folio FA940 DWG REV: C 2-Deburr any rough edges
 130 - (QC8- Inspect parts - second check)
 140 - (Chemical Conversion Coat per QSI005 4.1)
 160 - (White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum) START TIME: _____ FINISH TIME: _____
 170 - (QC3- Inspect Part Finish)
 180 - (Identify as per dwg & Stock Location: _____)
 190 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M6061T6B1.250X2.000	6061T6 Bar 1.250 X 2.000	7.4000 ft (.37 ea)	100-Bandsaw - 1	5127979

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Bandsaw - 1	M6061T6B1.250X2.000	7	12	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Hinge Bracket	4.300inches ± 0.010	4.310 4.290	4,299	
2	Hinge Bracket	4.000inches ± 0.010	4.010 3.990	4,000	
3	Hinge Bracket	0.340inches ± 0.010	0.350 0.330	,340	
4	Hinge Bracket	1.110inches ± 0.005	1.115 1.105	1,110	
5	Hinge Bracket	1.790inches ± 0.010	1.800 1.780	1,790	
6	Hinge Bracket	1.320inches ± 0.005	1.325 1.315	1,320	
7	Hinge Bracket	2.000inches ± 0.010	2.010 1.990	2,000	
8	Hinge Bracket	0.340inches ± 0.010	0.350		

MAT
used
7.571

DQA: _____ Date: _____



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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
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LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						

			0.330	,340	
9	Hinge Bracket	0.447inches $\pm$ 0.010	0.457 0.437	,447	
10	Hinge Bracket	0.171inches $\begin{matrix} + 0.005 \\ - 0.000 \end{matrix}$	0.176 0.171	,171	
11	Hinge Bracket	0.147inches $\pm$ 0.010	0.157 0.137	,145	
12	Hinge Bracket	0.376inches $\pm$ 0.010	0.386 0.366	,379	
13	Hinge Bracket	0.126inches $\pm$ 0.010	0.136 0.116	,124	
14	Hinge Bracket	0.063inches $\pm$ 0.010	0.073 0.053	,061	
15	Hinge Bracket	0.166inches $\begin{matrix} + 0.005 \\ - 0.000 \end{matrix}$	0.171 0.166	,166	
16	Hinge Bracket	0.911inches $\pm$ 0.010	0.921 0.901	,913	
17	Hinge Bracket	0.600inches $\pm$ 0.010	0.610 0.590	,600	
18	Hinge Bracket	0.125inches $\pm$ 0.010	0.135 0.115	,125	
19	Hinge Bracket	0.150inches $\pm$ 0.010	0.160 0.140	,150	

Plex 1/10/19 12:45 PM Dart.lajeunesse.marie

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OTHER : ☐					